HYPOTHETICAL TESTING.

T-Test Of A Single Mean Using, T- Distribution.

Given

for a sample of 10 annex countries, it is suggested that mean temperature change in the 2019 is greater than $1.5°C$.

1. $H_o : \mu = 1.5$

2. $H_1 : \mu > 1.5$ (right-tailed)

3. $\alpha = \cancel{0.05}\ 0.01$

Since, $n = 10$, $n < 30$
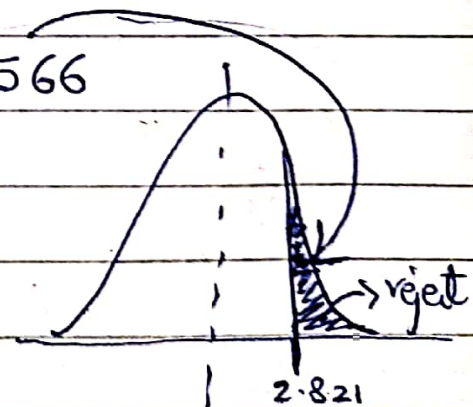
4. $t = \dfrac{\bar{X} - k}{S/\sqrt{n}}$

Given, $\bar{X} = 2.119458$ $t = 3.62566$

$S = 0.540288$

$n = 10$

5. degree of freedom $\Rightarrow n-1 = 9$

reject

2.821

6. Reject H_o and conclude that mean temperature change in 2019 of annex countries is greater than $1.5°C$.

PROOF

for n = 10

$$S = \frac{0.540288}{\sqrt{10}} \neq \sigma = \frac{0.729166}{\sqrt{41}}$$

$$0.2 \qquad \times \qquad 0.1$$

CanNotBeApproximated

When n ≥ 30 , n = 41

$$S = \frac{0.579165}{\sqrt{41}} \approx \sigma = \frac{0.729166}{\sqrt{41}}$$

$$0.1 \approx 0.1$$

✓